



## MOLECULAR AND CELLULAR NEUROBIOLOGY

12h15 P.M

THURSDAY  
MAY 09TH 2023

### Jérôme Cavillé

Team Cavillé

# « Box C/D small nucleolar RNA genes and the Prader-Willi syndrome: a complex interplay »

Box C/D small nucleolar RNAs (SNORDs) belong to a well-known family of antisense non-coding RNAs, the majority of which direct sequence-specific 2'-O-methylations on ribosomal RNAs, spliceosomal snRNAs, or transfer RNAs. In this talk, I will present our ongoing work on several neuronal-specific SNORD genes - SNORD115 and SNORD116 - which are epigenetically regulated by genomic imprinting, with their expression restricted to the paternally inherited allele. Specifically, I will discuss the molecular and physiological functions of SNORD115, which is one of the few examples suggesting a regulatory role of SNORDs in the post-transcriptional modification of mRNAs (e.g. *htr2c*, serotonin 2C receptor). Lastly, I will discuss how loss of expression of SNORD116 - and possibly also SNORD115 - may contribute to the pathophysiology of Prader-Willi syndrome, a rare neurodevelopmental disorder.

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